

B229 Product Support Guide

Introduction:

Model Type
Launch Date:
S/N Configuration:
Product Code:

B/C GelSprinter
07/2006
L49
B229

Product Code	Gestetner	Lanier	Ricoh	Savin
B229	GS 106	LD215c	Aficio 615c	SGC 1506

Training Information:

Technicians can obtain a certification on the B229 by successfully completing the CBT course.

Training Prerequisites:

Recommended prerequisites are certifications on the J001/J003 and the B259/B260/B261.

Description	EDP Code	RFG Number
Self Pace CBT CD	002732MIU	rfg023798
Service Manual	002733MIU	rfg023697
Parts Catalog	002734MIU	rfg023699
Point to Points	002735MIU	rfg023698

Documentation:

If you have any questions regarding this or any other training, please contact the Service Education and Development Division at (973) 882-5797.

Product Concept:

The MFP market has been drastically expanding for the past years, and following this trend, Ricoh has been successfully increasing color MFP sales. Color MFP demand is expected to keep increasing in the coming years. On the other hand, there's no Segment 1 (DLT/A3) color MFP launched yet. Ricoh aims to be a pioneer of Segment 1 (DLT/A3) color MFP market with the B229, and get the number 1 position of Color MFP.

Copy Speed:

FC 6ppm/ BW 15ppm

Based on Ricoh standard chart, A4/LT, LEF

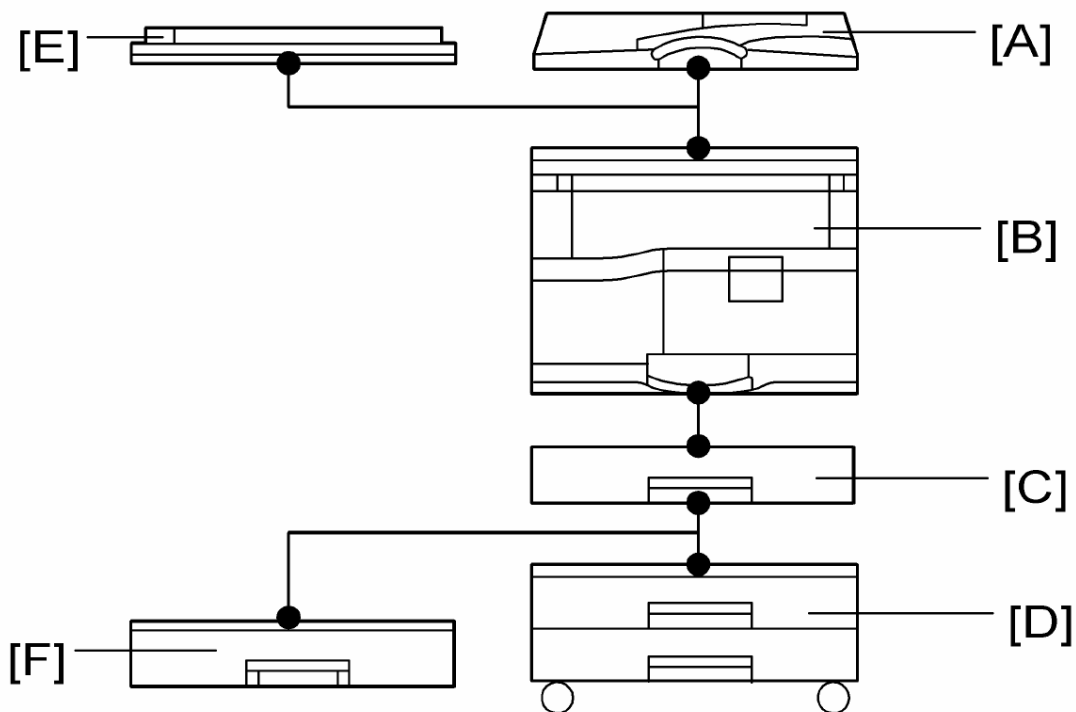
*Printing speed changes by original chart.

*When there's no maintenance performance (head cleaning)



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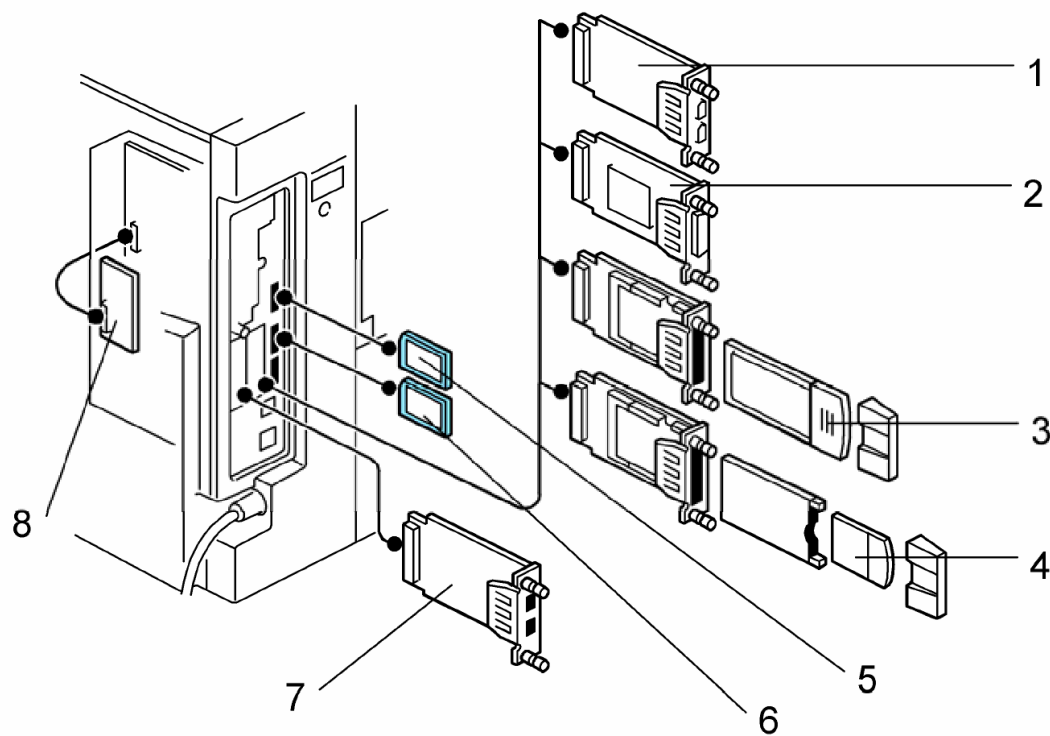
Machine Configuration:



Unit/Component		Machine Code	Diagram
Copier	Copier (1-tray non-duplex model)	B229	[B]
	Platen cover (optional)	B406	[E]
	ADF (optional)	B813	[A]
	ARDF (optional)	B814	[A]
	Paper tray unit–1 tray (optional)	B385	[F]
	Paper tray unit–2 trays (optional)	B384	[D]
	Duplex Unit	B806	[C]
	Tray heater (optional)	—	—
	Optics anti-condensation heater (optional)	—	—
Fax	Fax controller (optional)	B267	
	Handset (optional)	B433	

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Machine Configuration (Printer/Scanner):



Unit/Component		Machine Code	Diagram
Printer/ scanner	PostScript 3 (optional)	B850	5
	Function Upgrade Option	B271	-
	Data Overwrite Security Unit	B735	5
	Copy Data Security Unit	B770	8
	JVM SD Card	G874	6
Network	IEEE 1394	B581	1
	IEEE 1284	B679	2
	Wireless LAN	G813	3
	Bluetooth	B826	4
	USB Host	B825	7
	Remote Communication Gate	B818	-

NOTE: The Function Update Option (not shown) includes a Hard Disk Drive and 256 MB RAM memory.

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Features That Require A Function Upgrade Option:

NOTE: The Function Upgrade Option contains 256MB Ram and 40GB HDD. Without this option the features below are not available.

Color Copy	Duplex
	Electronic Sort
Scanner (B/W Color)	Scan to Email
	Scan to Folder
	Encryption PDF transmission
Security	Basic Auth.
	NT Auth
	LDAP Auth
	Data Overwrite Security
Fax	Internet Fax
	IP FAX
	Inbound Fax forwarding to PC
	Direct SMTP
Printer	Electronic Sort (Color)
	PDF Direct Print
	PictBridge
	Print Job Spool
	Sample print
	Locked print
	Hold print
	Store print/ store and print
	PS3
Other	Email Notification of machine status
	SDK applications

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Cross Reference Matrix:

◇ Must install either of them ○ Must Install Together ● Cannot Install Together

		1. Platen Cover	2. ADF	3. ARDF	4. Paper Bank (500 sheets x 1)	5. Paper Bank (500 sheets x 2)	6. Duplex Unit	7. FAX Unit	8. Handset	9. IEEE1394 *	10. IEEE1284 *	11. Bluetooth *	12. IEEE802.11B *	13. PS3	14. Function Upgrade Option	15. USB 1.1 Host Option	16. PictBridge Option	17. Copy Data Security Unit ***	18. DOSS	19. NRS Cumin-M *	20. JAVA VM Option
1	Platen Cover	●	●	●																	
2	ADF	●	●	●																	
3	ARDF	●	●	●			○														
4	Paper Bank (500 sheets x 1)				●																
5	Paper Bank (500 sheets x 2)				●	●															
6	Duplex Unit						●														
7	FAX Unit							●													
8	Handset							○	●												
9	IEEE1394 *								●	●	●	●	●						●		
10	IEEE1284 *								●	●	●	●	●						●		
11	Bluetooth *								●	●	●	●	●						●		
12	IEEE802.11B *								●	●	●	●	●						●		
13	PS3													●	○						
14	Function Upgrade Option														●						
15	USB 1.1 Host Option														○	●	○				
16	PictBridge Option														○	○	●				
17	Copy Data Security Unit ***																	●			
18	DOSS														○				●		
19	NRS Cumin-M *									●	●	●	●							●	
20	JAVA VM Option														○						●

*When Cumin-M is used, Network doesn't work. (Standard USB 2.0 can be used.)

**Fax stamp Ink is set in ADF/ARDF, so either ADF or ARDF is required.

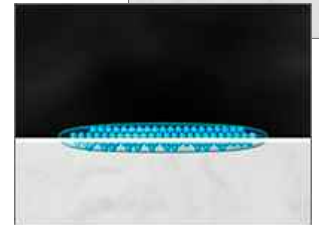
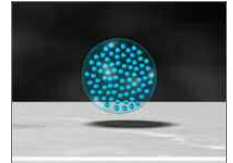
*** When Copy Data Security is attached, fax and scanner application will be deactivated, and copy R/E will be 50% to 400%.

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Product Features: Engine MFP

Thanks to the Ricoh advanced Gel Sprinter technology; The B229 achieves extremely high productivity and image quality. The B229 provides high color image quality on plain paper at fast printing speed. The B229 uses Ricoh Viscous Ink, which is a Pigment-based ink with high viscosity, for all 4 colors.

Dye-based Ink	Pigment-based Ink	Ricoh Viscous Ink
Soaked into paper	Dry gradually	Stick & dry quickly
Spread image	Easily rubbed	Solid image
Less thick color	Thick ink	Thick ink



Advantages of Viscous Ink:

1. Penetration:

- i. Dries quickly,
- ii. High speed printing
= No stain on the back of the print-out
- iii. Enables high speed duplex printing

2. Viscosity:

- i. Avoid blur on plain paper (gelatinize)
- ii. Does not penetrate through papers, nor cause stains at the back

3. Durable print-image:

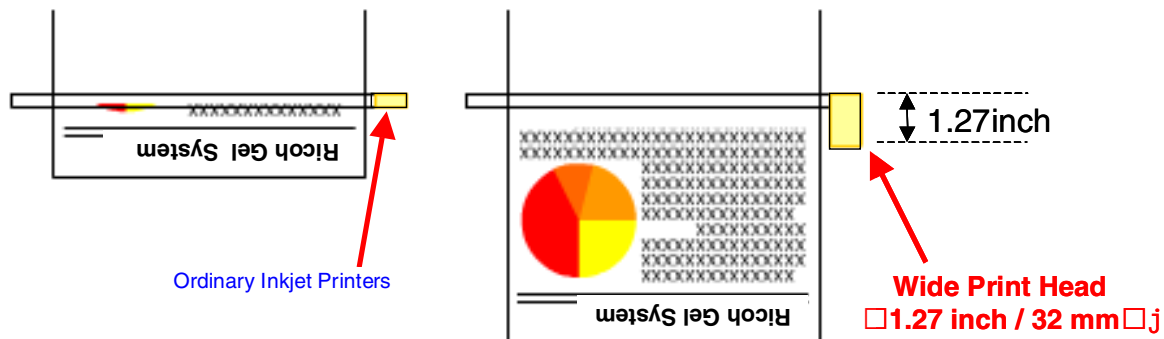
- i. Water proof
- ii. Anti-sunray

- ◆ Solid and Crisp Image on plain paper
- ◆ High Speed Duplex Printing

Print Head

Wide Print Head

The print head of the B229 is as big as 1.27 inch/ 32mm, which enables writing a wider line compared to others.



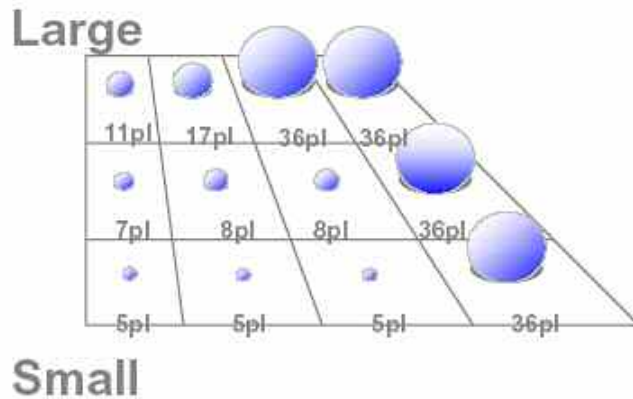
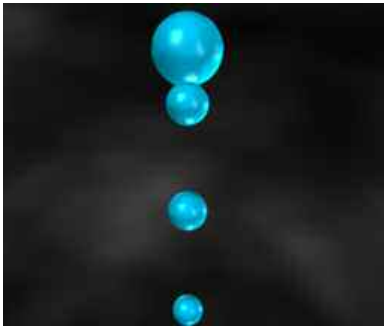
- ◆ Fast Speed Printing

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Modulation Dot

Strong and controllable pressure with advanced form of Piezo technology enables Modulation Dot. With this technology, the B229 can describe printing image expressively.

- 2-bit controls that can vary the size of the ink drop in maximum 3 variations in the same print mode.
- Up to 4 drops will be combined in the air, which enables various sizes of dots



◆ High Image Quality

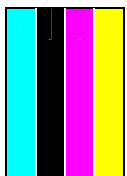
Monochrome Twin Head

The B229 has 2 print heads of 300dpi for black, which enables writing 600dpi at one time. That is, the B229 realizes very fast 600dpi printing, at 15ppm* in BW mode.

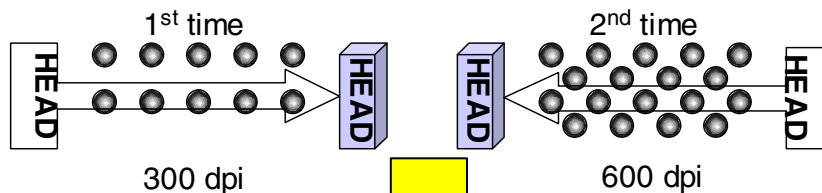
*J1 chart, in normal mode. ppm differs depends on the chart.

<Printing Head Image>

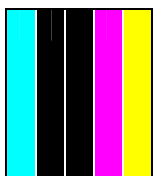
□ Ordinary Inkjet



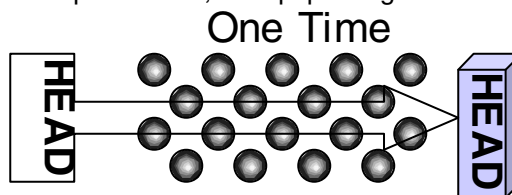
With only 1 black print head, the head must move back and forward, and it takes time to achieve 600dpi.



□ B229



With the B229 2 black print heads, 600dpi printing is made at once!



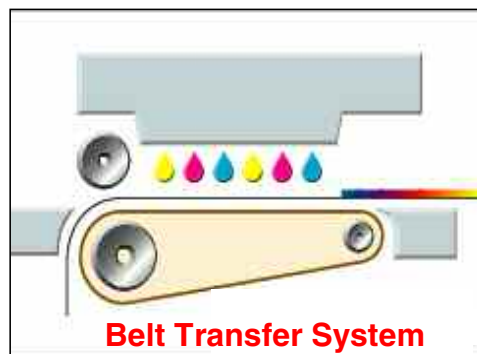
600 dpi!!

◆ Fast Speed Printing

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Belt Transfer System

The B229 transfers paper using a belt with an electrostatic charge. Unlike competitors' inkjet models, which use roller-feeding system, the B229 can hold paper tightly and write accurately. This enables high image quality.



Advantages of Belt Transfer System:

1. "Paper feed belt" with electrostatic power holds paper tightly to achieve accurate paper –feeding through the transport system.
2. Accurate paper-positioning that enables "laser-like printable area"
3. Controls the appropriate distance between paper and print head.

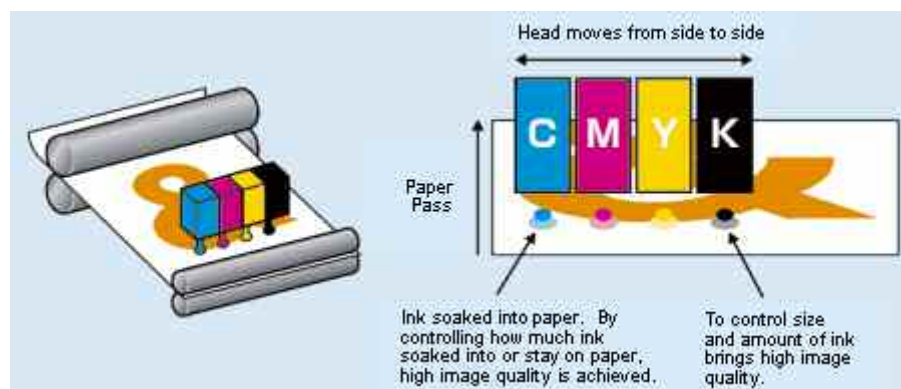
- ◆ Highly accurate print images both for simplex & duplex printing
- ◆ Laser-like printable area only require 3 mm margins

Comparison with Laser Technology

<Laser Technology>

Advantage: -No blur or rubbing of the print image.

Disadvantage: -High power consumption by fusing system.



<B229 Technology>

Advantage: -Low power consumption without fusing system.

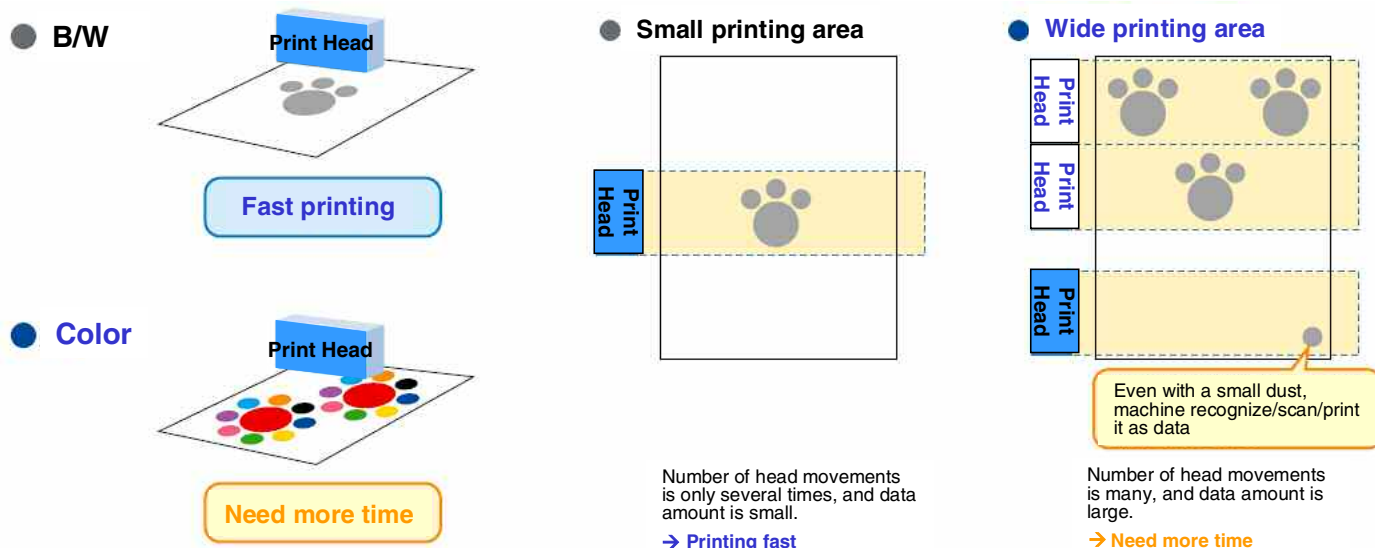
Disadvantage: -Printing image may blur. → Viscous ink prevents it, even on plain paper!

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Productivity (printing speed)

Printing speed of the B229 changes depending on layout of original image, size, type of paper, printing mode, etc. Original chart with wide printing area requires more print head movements, which results in slower printing speed.

High quality mode requires more amount of ink; so printing speed will be reduced even with the same data or original chart.



Important Information About Gel Sprinter Technology

Although most of the following characteristics are basic to ink-based printing systems in general, they should be explained to new B229 users since most will be MFP users and therefore may not be aware of these items.

General characteristics inherent to ink-based printing systems:

1. Color ink consumption during B/W printing

To keep the printing heads in good working order, some color ink is consumed during B/W printing. This is to prevent the nozzles, which are not being used for printing from drying up and clogging. As a result, if the color ratio is low, in some cases the color ink cartridge may not reach its target yield. However, if the color ratio is high, in some cases the color ink cartridge can be used past its target yield.

2. Printing prohibited if an ink cartridge is empty

The machine will prohibit both B/W and color printing if any of the ink cartridges are empty, even when the data to be printed does not contain the color of the empty cartridge. This is to maintain the printing heads in good working order, and to ensure that images are not printed with some colors missing.

3. Slight image shift along the mainscan direction

Images may shift slightly along the mainscan direction, depending on environmental conditions such as temperature and humidity. This is because these factors can affect the characteristics of the ink, and therefore the actual position on the paper where the ink drop is delivered. This can be improved by using an adjustment inside the User Tools "Maintenance Menu". However for cases in which the customer is not satisfied with the level of improvement, unidirectional printing can be enabled in SP mode.

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4. Lighter image density with duplex printing

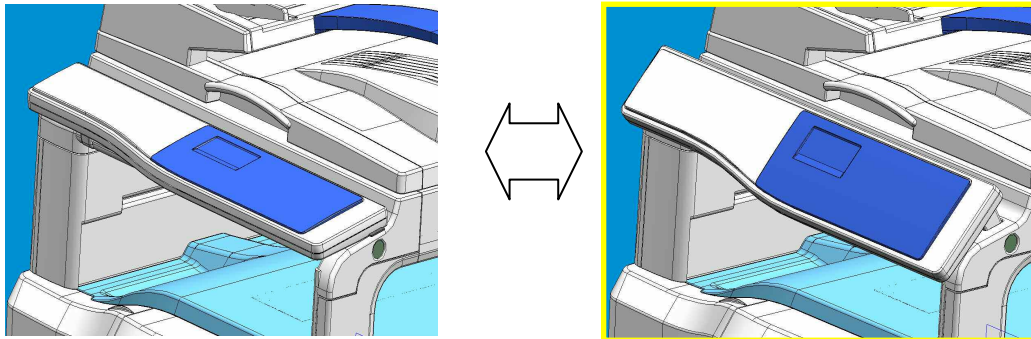
The machine automatically reduces the image density when making duplex prints. This is to ensure that the images do not "bleed through" the paper and become visible on the opposite side.

5. Longer paper output time

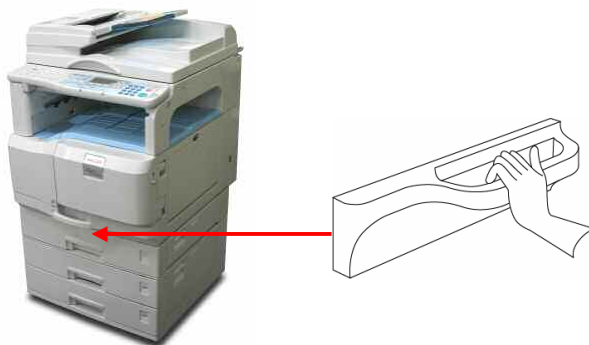
The machine may keep the printed paper inside the machine for a short time if the image coverage is very high. This is to ensure that the image is dried by the time it reaches the exit tray, which minimizes paper curl and eliminates the need for the customer to avoid touching the image when it is exited (as is the case with most products in the market using ink-based printing systems). The amount of time the paper is kept inside the machine varies depending on the image coverage ratio and environmental factors such as temperature and humidity.

New Tilt Operation Panel:

The B229 has a standard tilt operation panel. By tilting the operation panel, users can operate the machine from the lower position, for example sitting in a wheelchair.



1st Paper Tray with Handle

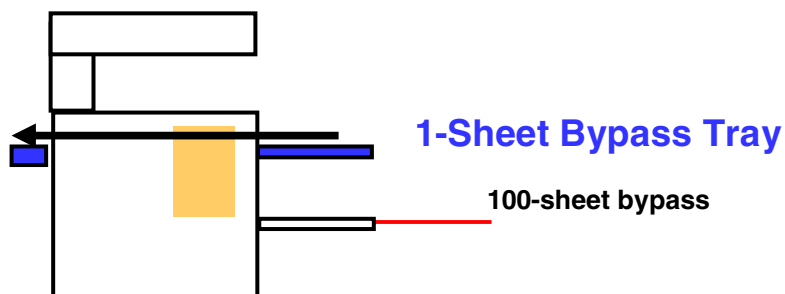


The B229 standard 250-sheet paper tray is designed to make it easier to pull with overhand grip.

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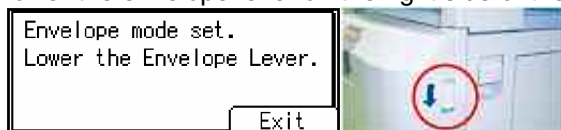
1-Sheet Bypass Tray:

In addition to the 100-sheet bypass tray, which is equipped as standard, the B229 has "Single sheet bypass" which thick paper up to 220g/m² (55 lbs bond) can be put through.



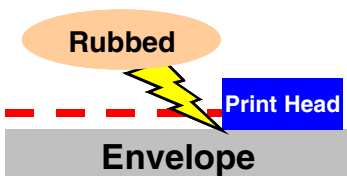
Envelope Lever

When choosing envelope in paper type settings, the following message is displayed to instruct user to lower the envelope lever on the right side of the machine.

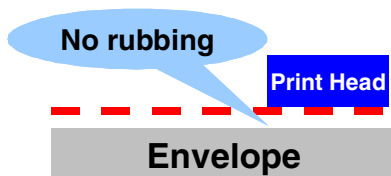


When the envelope lever is lowered, print head will be lifted up so that paper shall not rub against paper.

***Print head at original position**



***Print head lowered**



Please note that when the envelope lever is lowered and print head is lifted accordingly, printing speed will be reduced, and printing image may not be correctly produced.

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General Copier Feature:

		Remarks
1st copy speed	➤ B/W: Less than 9.7 secs ➤ Color: Less than 24seconds ➤ (A4 / 8 1/2" x 11" LEF from the standard tray, no R/E, Plain Paper)	Condition: Ricoh standard chart, A4/LT, LEF *Copying speed changes by original chart.
Multi copy speed	➤ B/W: 15cpm ➤ Color: 6cpm ➤ (A4 / 8 1/2" x 11" LEF, no R/E) ➤ (DF one to one copying)	*When there's no maintenance performance (head cleaning)
Multiple copy	➤ Up to 99	
Resolution	➤ 600 dpi	
Gray Scale (per dot)	➤ Scanning: 600dpi, 8 bit, 256 levels, ➤ Marking: 600dpi, 2 bit, 4 levels	
Warm-up time (Start-up time)	➤ Less than 20 seconds (copying, mainframe only)	20 degrees C Printer/Scanner (mainframe only): about 60 sec *Warm-up (Start-up) time differs by configuration.
Recovery time	➤ Less than 5.5 seconds	
Enlargement	➤ 121, 129, 155, 400 %	4E
Reduction	➤ 93, 78, 65, 50, 25%	5R
Zoom	➤ 25% to 400% in 1% step	With copy data security unit, 50% to 400%
Electronic counter	➤ Standard	
Language	➤ English, French Spanish, Portuguese	

Enhanced Copier Feature:

		Remarks
Image density adjustment	Manual (5 levels) or automatic	
ACS (Auto Color Select)	Not available	
Color Mode	Black & White (default) Full Color	Two color: not available
Copy Mode	- B/W Text - B/W Photo - FC Text - FC Photo *The following 3 modes can be changed with default modes. - Map - Pale - Generation	Auto Text & Photo Separation is not available
APS / AMS	Standard	
Auto tray switch	Option	Available with optional paper bank.
Directional magnification (%)	No	
Directional size magnification (inch/mm)	No	
Size Magnification	No	
Full Image Copy (93% &	No	

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Enhanced Copier Feature:

		Remarks
Centering)		
Duplex copy	Yes (optional duplex unit needed) 1 sided to 2 sided 2 sided to 2 sided (with ARDF)	For Color duplex, Function Upgrade Option also needed. Book to 2 sided N/A
Series copy	Standard (Book → 2 one sided sheets) Option (2 sided original to simplex)	*ARDF needed
Combine copy	Standard (2 in 1, 4 in 1) Option (4 in 1 duplex, 8 in 1 duplex)	*Duplex unit needed
Image rotation	Standard	
Electronic sort	Standard *For Rotate sorting, optional Paper Bank is required.	For color, Function Upgrade Option is needed
Editing Function	No	Color Creation, Double Copy, Positive/Negative, stamping
Copy Color Adjustment	Color Balance: Yes Adjust Color: Yes -ACC: No Copy Quality: Yes -Sharp/Soft: Yes -Contrast: Yes -Background Density Adjustment: Yes -UCR Adjustment: Yes	* ACC: Auto Color Calibration * UCR: Under Color Removal
User code	Standard (50 codes, eight digits)	
Auto start	Standard	

Auto Document Feeder:

Original size:	A5 - A3 (SEF), 5 1/2" x 8 1/2" - 11" x 17" (SEF)
Original weight:	52 - 105 g/m ² , 14 - 28 lbs.
Stack capacity:	30 sheets (80 g/m ² , 20 lbs.)
Power consumption:	25w or less
Dimensions (W x D x H):	550 x 470 x 90 mm, 21.6" x 18.5" x 3.55"
Weight:	7kg (15.4lbs)
Sound Power level:	60dB or less

Auto Reverse Document Feeder:

Original size:	A5 - A3 (SEF), 5 1/2" x 8 1/2" - 11" x 17" (SEF)
Original weight:	Simplex original: 40 - 128 g/m ² , 10 - 34 lbs. Duplex original: 64 - 105g/ m ² , 17 - 28 lbs.
Stack capacity:	50 sheets (80 g/m ² , 20 lbs.)
Power consumption:	50w or less
Dimensions (W x D x H):	550 x 470 x 130 mm, 21.6" x 18.5" x 5.1"
Weight:	10kg (22.05lbs)
Sound Power level:	58dB or less

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Duplex Unit:

Original size:	A5 - A3 (SEF), 8.5" x 11" - 11" x 17" (SEF)
Original weight:	64 - 105 g/m ² , 20 - 28 lbs.
Power consumption:	42w or less
Dimensions (W x D x H):	550 x 620 x 112 mm, 21.6" x 24.4" x 4.4"
Weight:	Main Frame: 11kg (23.1 lbs) Interchange Unit: 0.6kg (1.3lbs)
Sound Power level:	Copying: 66dB or less Stand-by: 50dB or less

Special Features:

➤ On Demand & Auto Email Notification	⇒ Status or alert of the machine will be notified to admin or IT manager automatically and remotely via e-mail. This will improve the manageability of the machine.
➤ Inbound Fax to Folder with E-mail Notification	⇒ Improvement of inbound fax management and workflow, as well as security of the inbound fax.
➤ Enhanced and New Printer Features	⇒ Accomplishment of better usability, functionality and security as ID folder with enhanced Lock Print, Sample Print and new printer job types, Hold Print, Store Print.
➤ Security feature: Windows Authentication:	⇒ Authenticates an individual user by utilizing the existing Windows network username / password. No one without a valid username / password can access the machine.
➤ LDAP Authentication	⇒ Eliminates the unauthorized usage and access to the machine.
➤ HDD data protection: Data Overwrite Security option (DOSS):	⇒ It eliminates the risk of unauthorized access to the information remaining on HDD of the machine.
➤ Enhanced Fax Features:	⇒ IP Fax ⇒ Forwarding inbound faxes to Folder ⇒ Inbound Fax to Folder with Email Notification ⇒ LAN-Fax result by E-mail (No User Code required)
➤ Environmental Friendly:	⇒ Abolished environmental sensitive materials. (Lead, Chromium, PVC, Cadmium free) in compliance with EU RoHS directive. (RoHS: Restriction of Hazardous Substances, effective from July 2006.
➤ Scan to NCP (Netware)	⇒ This feature will enable capturing the new Novell network environment users.
➤ Fax number search via LDAP	⇒ Manageability in documents distribution destinations like Email address search for Scan to Email.
➤ Encryption	⇒ Prevents data theft or falsification during transmissions.
➤ Unauthorized Copy Control Features	⇒ Eliminates the risk of unauthorized copy of sensitive documents printed out.

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Special Features:

➤ PictBridge	⇒ PictBridge allows you easily to print images captured by a DSC (digital still camera) without a PC. PictBridge includes a wide range of functions, but the particular functions available will depend on the individual device specifications
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Printer Option Features:

Main Features / Options:

- ✧ *Enhanced and New Printing Features -ID Folder-*
- ✧ *PDF Direct Print*
- ✧ *PictBridge Support*
- ✧ *Bonjour, Windows Active Directory Support, DDNS*
- ✧ *Versatile network connectivity*
- ✧ *Advanced features for printing in host system environment*

General Printer Features:

Printing module:	Built in standard
Controller CPU:	RM5231A-400MHz
Print speed (A4/LT LEF)	FC 6ppm/ BW 15ppm Condition: Ricoh standard chart A4/LT, LEF *Printing speed changes by original *When there's no maintenance performance (head cleaning)
Memory capacity:	384MB(Standard)*1 640MB(Max)*1
HDD:	➤ Optional: 40GB (Function Upgrade Option)
Supported Printer language:	➤ Standard: RPCS, PCL5c, PCL6 ➤ Option: Adobe PostScript3
Fonts: Standard	➤ 45 roman fonts and ➤ 13 international fonts*2
Optional	➤ PS3: 136 Roman fonts
Standard I/F:	➤ Ethernet (100 base TX/10 base T) ➤ USB 2.0
Optional I/F:	➤ IEEE1284 (Parallel Port) ➤ IEEE1394 ➤ Wireless LAN IEEE802.11b, WEP & WPA Support ➤ Bluetooth ➤ USB Host I/F (PictBridge)
Network Protocol:	➤ TCP/IP (IPv4, IPv6), ➤ IPX/SPX, ➤ AppleTalk ➤ SMB
Print Resolution (Max): (Min):	➤ 600 x 600 dpi (2bit) ➤ 300 x 300 dpi (1bit)

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General Printer Features:

Driver Print Quality:	Speed (Fast):	Plain Paper	300 x 300 dpi (1bit)
		InkJet Plain Paper	600 x 600 dpi (2bit)
		OHP	600 x 600 dpi (2bit)
	Standard (Normal):	Plain Paper	600 x 600 dpi (2bit)
		InkJet Plain Paper	600 x 600 dpi (2bit)
		OHP	600 x 600 dpi (2bit)
	Fine (Quality):	Plain Paper	600 x 600 dpi (2bit)
		InkJet Plain Paper	600 x 600 dpi (2bit)
		OHP	600 x 600 dpi (2bit)
PDF Direct Print:	➤ Yes (PostScript3 option is required)		
Host Interface Std.:	➤ Ethernet (RJ-45 network port: 10Base-T/100Base-TX)		
	➤ USB 2.0		
Host Interface Option:	➤ USB Host I/F (PictBridge)		
	➤ IEEE1284/ECP		
	➤ IEEE1394,		
	➤ Wireless LAN (IEEE802.11b, WEP & WPA support)		
	➤ Bluetooth		
Network Protocol:	➤ TCP/IP (IPv4, IPv6)		
	➤ IPX/SPX		
	➤ SMB		
	➤ Apple Talk (Auto Switching)		
MIB Support (Std) (SMNP Printer MIB)	➤ MIB-II (RFC1213)		
	➤ Host Resource (RFC1514)		
	➤ Printer MIB (RFC1759)		
MIB Support Private MIB:	➤ Ricoh Original		
Network/Operating Systems *3	➤ Windows 95/98SE/NT4.0/2000/Me/XP/Server 2003		
	➤ Netware		
	➤ Unix		
	➤ Sun Solaris		
	➤ HP-UX		
	➤ SCO Open Server		
	➤ RedHat Linux		
	➤ IBM AIX		
	➤ Mac OS		

*1) Shared with other features (Copy, Fax, Scanner)

*2) Cyrillic (Russian), Greek, Hebrew and Arabic are included in International Fonts.

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Supported Environment:

OS	Type	PCL5c	PCL6	RPCS*3	PostScript3
Windows 9x/Me	-	Y	Y	Y	Y
Windows NT	WorkStation 4.0	Y *1	Y *1	Y *2	Y *1
	Server 4.0	Y *1	Y *1	Y *2	Y *1
Windows 2000	Professional	Y	Y	Y	Y *3
	Server	Y	Y	Y	Y *3
	Advanced Server	Y *4	Y *4	Y *4	Y *3
	Datacenter Server	N	N	N	N
Windows XP	Professional	Y	Y	Y *5	Y *3
	Home Edition	Y	Y	Y *5	Y *3
Windows Server 2003	Standard Edition	Y	Y	Y *4	Y *3
	Enterprise Edition	Y *4	Y *4	Y *4	Y *3
	Datacenter Edition	N	N	N	N
	Web Edition	N	N	N	N

[Remarks]

1. Service Pack 6 or later is required.
2. Service Pack 6a or later is required.
3. Adobe does not release PS driver for Windows2000 and XP. Only MS-PostScript driver is available and PPD file for MS-PS is included in the Driver CD.
4. Cluster Server configuration is not supported.
5. RPCS driver does not support "Fast User Switching" functions of Windows XP.

Point And Print:

Windows OS		Drive		
Server	Client (push to)	PCL5c/6	RPCS*3	PostScript3
Windows server2003	XP	Yes	Yes	Yes
	W2K Pro	Yes	Yes	Yes
	NT4.0 WS	Yes	Yes	Yes
	98 / Me	Yes	Yes	Yes
Windows XP Professional	XP	Yes	Yes	Yes
	W2K Pro	Yes	Yes	Yes
	NT4.0 WS	Yes	Yes	Yes
	98 / Me	Yes	Yes	Yes
Windows 2000 Professional Server & Advance Server	XP	Yes	Yes	Yes
	W2K Pro	Yes	Yes	Yes
	NT4.0 WS	Yes	Yes	Yes
	98 / Me	Yes	Yes	Yes
NT4.0 Workstation & Server (Intel)	XP	No	No	No
	W2K Pro	Yes	No	No
	NT4.0 WS	Yes	Yes	Yes
	98 / Me	Yes	Yes	Yes

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Terminal Service And Citrix Metaframe:

Server	Driver		
	PCL5c/6	RPCS	PS
Windows Server 2003	Yes	Yes	Yes
Windows 2000 Server	Yes	Yes	Yes
Windows NT4.0 TSE	Yes	Yes	Yes
Win 2003 Servers + MetaFrame	Yes	Yes	Yes
Win 2000 Servers + MetaFrame	Yes*1	Yes	Yes
Win NT4.0 TSE +MetaFrame	Yes	Yes	Yes
Win 2003 Servers + Citrix PresentationServer4.0	Yes	No	Yes
Win 2000 Servers + Citrix PresentationServer4.0	Yes	No	Yes
Win NT4.0 TSE + Citrix PresentationServer4.0	No	No	No

The following combinations of operating system and Citrix MetaFrame are supported:

[Windows NT Server 4.0 Terminal Server Edition. with SP6 and later required]

1. Windows Terminal Service (RDP protocol)
2. MetaFrame 1.8 SP3/FR1+SP3/SP4 (ICA protocol)
3. MetaFrame XP 1.0 SP1/SP2/FR1 (ICA protocol)

[Windows 2000 Server /Advanced Server]

1. Windows Terminal Service (RDP protocol)
2. MetaFrame 1.8 SP3/FR1+SP3/SP4 (ICA protocol) *1
3. MetaFrame XP 1.0 SP1/SP2/SP3/SP4/FR1/FR2/FR3 (ICA protocol)
4. MetaFrame PresentationServer3.0
- 5.Citrix PresentationServer4.0 *2

[Windows 2003 Server]

1. Windows Terminal Service (RDP protocol)
2. MetaFrame XP 1.0 SP4/FR3 (ICA protocol)
3. MetaFrame PresentationServer3.0
- 4.Citrix PresentationServer4.0 *2

NOTE:*1: PCL mono-drivers do not support MetaFrame1.8 + SP3 Environment. Only mini-driver support Meta1.8+SP3 Environment.

NOTE:*2: Only PCL/PS drivers are tested under this environment.

NOTE:Even "Yes" is put in the cell, there is a case driver is not supported under the combination of FR and Service Pack of MetaFrame. Please refer to the release announcement of Terminal Service for more

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Mac OS Environment:

	PostScript3	Printer Utility for MAC
Mac OS 8.6 or later, Mac OS X classic	Yes	Yes
Mac OS X Native : v. 10.1 or later *1	Yes	Yes*2

*1: Mac OS X v.10.0.X is not supported.

*2: Mac OS X v.10.2.0 is not supported.

Unix Environment:

Unix Platforms	Version
Sun Solaris	2.6 / 7 / 8 / 9 / 10
HP-UX	10.x / 11.x / 11iv2
Red Hat Linux	6.x / 7.x / 8.x / 9.x / Enterprise
SCO OpenServer	5.0.6 / 5.0.7
IBM AIX	V4.3 & 5L Version 5.1/5.2 / 5.3

Supported Schedule: 2006/Q2

The above specification and schedule are current plan and may change in final release. Please refer to the release announcement of Unix Filter for more details.

Unix Filter can be downloaded for free from the download web site such as below:

<http://www.ricoh-usa.com/downloads/downloads.asp?path=http://us.support.ricoh.com/connectivity/rc/top/unixfilter.htm>

Novell Netware:

Netware Server	Supported Version	Netware 3.12 / 3.2 / 4.1 / 4.11 / 5.0 / 5.1 / 6.0/6.5
	Client OS	Windows 95 / 98 / Me / NT4.0 / 2000 / XP (Professional)
NDPS Gateway	Supported Server OS	Netware 5.1 (SP 8 or later) / 6.0 (SP5 or later) / 6.5 (SP-3 or later)
	Supported Client OS	Microsoft Windows 98 SE with Novell Client 3.4 Microsoft Windows NT4.0 SP6A / 2000 SP4 / XP (Professional) SP2 with Novell Client 4.90 SP2
	Localization	English, German, French, Italian, Spanish

[NDPS Gateway]

Supported Schedule: 2006/Q4

The above specification is current plan and may change in final release. Please refer to the release announcement of NDPS Gateway for more details.

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PictBridge Specification:

Printing Quality	Normal (Default):	600 x 600dpi, 2bit
	Fine:	600 x 600dpi, 2bit
Supported Image format type		JPEG (Exif ver. 1.0 and later, JFIF), TIFF (MMR system (*1))
Max transmission image file		999 (*2)
Printable Paper type		Plain, Recycled paper, Inkjet Post Card Inkjet Plain paper
PictBridge Option		SD card
Optional Interface		USB host interface board (USB1.1)
PictBridge Printing Function	Single image printing	Yes
	Selected image printing	Yes
	DPOF printing	No
	Index printing	Yes
	All image printing	Yes
	Trimming	Yes
	Multiple number printing	Yes
	Date and file name printing	Yes
	Selected paper size printing	Yes
	Fixed size printing	Yes
	N-up layout printing	Yes
	Margin-less printing	No
	Printing quality	Yes
	Color matching	Yes
	Paper type specification	Yes
	Form Printing (*3)	Yes
	Camera Memo (*3)	Yes
PictBridge Error Notification	Data error	Yes
	Memory error	Yes
	Service Call	Yes
	Jam	Yes
	Printer cover open	Yes
	No ink	Yes
	No paper	Yes
	Printer unavailable	Yes
	Running out of ink	Yes

(*1): This is Ricoh original digital still camera format mode. Need Ricoh DSCs and Ricoh brand's machines to use the format.

(*2): Maximum quantity of transmission image depends on digital still camera.

(*3): Between Ricoh DSCs and Ricoh brands' machines only.

Scanner Option Features:

Main Features / Options:

- LDAP Support (up to 5 servers) Can be updated from WIM
- Scan to NCP (Netware)
- Scan to SMB
- Scan to FTP
- Scan Type Single Page PDF available
- Encrypted PDF Transmission (PDF file security setting)
- Drop Out Color Transmission

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General Scanning Features:

Optical Resolution:	➤ Scan to Email/folder: 100 / 200* / 300 / 400 / 600 dpi, *Default ➤ Twain: 100 – 1,200dpi (for color 100-600dpi)	
Scan Speed:	➤ BW: 42 pages/minute (A4/LEF, 200dpi BW binary, ITU-T No.1 chart via ADF/ARDF) ➤ FC: 13 pages/minute (A4/LEF, 200dpi Full Color,) *Scanning speed varies according to machine operating conditions, computer (specification, network traffic, software, etc.) and original types.	
Auto scan size detection:	Contact Glass	➤ 11"x17"(DLT) SEF, 8 ½"x14"(LG) SEF, ➤ 8 ½"x11"(LT) LEF/SEF,
	ADF/ARDF	➤ 11"x17" (DLT) SEF, 8 ½"x14" (LG) SEF, ➤ 8 ½"x11"(LT) LEF/SEF, 5 ½"x8 ½"(HLT) LEF/SEF,
Scan Area:	➤ Main Scan: 297mm, Sub Scan: 432mm	
sRGB Support:	➤ Standard (Twain: Selectable)	
Network Interface:	➤ Ethernet 10/100BaseTX, ➤ IEEE 1394/IP over, Wireless LAN (802.11b)	
Protocol:	➤ Network: TCP/IP ➤ Sending E-mail: SMTP, POP3 ➤ Scan to Folder: SMB, FTP, NCP	
Compression Method:	➤ BW: TIFF (MH, MR, MMR) ➤ Grayscale, Full color: JPEG	
Scan Mode:	<B/W> ➤ Text/ Line Art (Default) ➤ Text ➤ Text/Photo ➤ Photo (Default) ➤ Gray Scale <FC> ➤ Text/Photo (Default) ➤ Glossy Photo (Default)	
Drop Out Color	➤ Available: 5 levels	
Image Density:	➤ Auto Density Selection: N/A ➤ Manual: 5 levels (Effective in BW/Grayscale and FC scan mode) *Default: Level 3	
2 Sided Scan	➤ Yes (optional ARDF required)	
Image Rotation:	➤ Yes	
SADF / Batch Mode:	➤ No	
Mixed Size Mode	➤ Yes	

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Scan To Email:

Requirement:	➤ Function Upgrade Option ➤ SMTP (Mail Server) Gateway and TCP/IP	
Authorization function:	➤ SMTP authentication ➤ POP before SMTP authentication	
Resolution:	➤ 100dpi ➤ 200dpi (Default) ➤ 300dpi ➤ 400dpi ➤ 600dpi	
MAX E-mail address#	➤ 150 addresses (Incl. 32 speed dials)	
Register Group address:	➤ Standard: 10 groups (100 numbers per 1 group)	
Maintain E-mail address:	➤ Direct input on operation panel ➤ Web Image Monitor ➤ SmartDeviceMonitor for Admin	
Manual Input of destination E-mail address:	➤ Possible, Max. 65 destinations per job	
Search E-mail address in HDD:	➤ No	
LDAP Search:	➤ Yes	
Max. Address numbers per send:	➤ Max. 300 addresses per send *1	
Address numbers per send:	Address from address book *1	Max. 300
	Address directly input via operation panel*1 *2	Max. 100
	Address looked up via LDAP *1 *2	Max. 100
Attention:	To	
Subject:	Manual Input	Max. 128 Characters
	Pre-register by user	No
Body Message:	Manual Input	No
	Pre-register by user	No
	Preset	Message: "This e-mail included attached file sent from xxxx (machine model name)." Scan Date: xxxx Queries To: xxxx (admin email address)
E-mail Size (with restriction):	128 - 102,400KB, Default = 2,048KB	
E-mail Size (w/o restriction):	725MB	
File type:	➤ Multi Page TIFF (Default) ➤ Multi Page PDF ➤ Single Page TIFF/JPEG ➤ Single Page PDF	
PDF Security Setting	Yes	
Program User Setting:	No	
Divide and send e-mail:	Number of pages divided: 2 – 500 (default: 5) Yes (By page or size) / No, Default = Yes (By size) *3	
Resend:	Yes / No, Default = Yes	
Local Storage	No	

*1: Address from address book + Address input via operation panel + Address looked up via LDAP = Max.300.

*2: Address directly input via operation panel + Address looked up via LDAP = Max. 100.

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*3: If the sent file size exceeded the maximum E-mail size, it would be divided to multiple sending. In addition, the sent files might not be accepted by the receiving side due to the limitation in the receiving capacity at the receiver SMTP server or E-mail software setting.

Scan To Folder:

Requirement	➤ Function Upgrade Option
Protocol Support:	➤ SMB (Server Message Block) ➤ FTP (File Transfer Protocol) ➤ NCP (Netware Control Protocol)
Security:	➤ Client folder log-in (log-in name and password) ➤ Encryption of log-in name and password during transmission
Resolution:	➤ 100dpi ➤ 200dpi (Default) ➤ 300dpi ➤ 400dpi ➤ 600dpi
Register client folder address:	➤ Max. 150 folders
Maintain client folder address:	➤ Direct input on operation panel ➤ WebImageMonitor ➤ Smart DeviceMonitor for Admin
Destination client folder address input via operation panel:	➤ Yes ➤ SMB: Network path -> User Account-> Password ➤ FTB: Server -> Network path -> User account -> Password ➤ NCP: Browser directly to designated folders
Search client folder:	➤ SMB: Browsing directly to the designated folders ➤ FTP: By client folder name
Max. Client folder numbers per send:	➤ Max. 50 client folders / PCs per send
Destination Combination:	Refer to Max address chart below
Group address:	➤ Max. 132 destinations (To Folder: 32, To E-mail: 100) (*1) ➤ e.g. 100 destinations 32 folders included >>>OK ➤ 100 destinations 33 folders included>>>Failure
Input Subject:	➤ No
Scan File Size:	➤ No limitation (Depends on PC HDD and memory.)
File Size when combined Scan to Folder & Scan to E-mail:	➤ 64 - 102,400kB ➤ Default = 2,048KB (With restriction) ➤ 725MB (Without restriction) ➤ (Scan to E-mail file size applied).
File type:	➤ Multi Page TIFF (Default) ➤ Multi Page PDF ➤ Single Page TIFF/JPEG ➤ Single Page PDF
PDF Security Setting	➤ Yes
Program User Setting:	➤ No
Dividing file in Scan to E-mail:	➤ Yes (By page or size) / No, Default = Yes (By size) ➤ (When Scan to PC combine with Scan to E-mail)
Resend:	➤ Yes / No, Default = Yes

(*1) User can send to Max. 132 destinations in the same group. But the number of folders has to be less than 32, since Max. folder destinations are 32. If there are more than 32 folder destinations registered in the Group address, a message pops up.

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Max. Address Numbers Per Sending (combination between E-mail and Folder):

Main Address Number Per Sending (Combination between E-mail and Folder):				
	Input via	Condition 1: Max.address can select or input	Condition 2: Max. Address allow in single operation	Condition 3: Combination of addresses: Max.
Scan to E-mail	Address book	100	100	132
	Manual input	50		
Scan to Folder	Address book	32	32	
	Manual input	32		

The number of destination which user can put has to satisfy all of above 3 conditions. User can combine E-mail and Folder destinations up to 132 destinations

Network TWAIN:

OS:	➤ Windows 95, 98/98SE, ME ➤ Windows NT Server4.0 (SP5 or later) ➤ 2000Server ➤ Windows XP ➤ Server2003			
Resolution:	➤ FC: 100 – 600 dpi ➤ BW: 100 – 1200 dpi *Max resolution matrix			
	Size		FC	BW
	A3	Basic	150dpi	600dpi
		With Function Upgrade option	400dpi	
	A4	Basic	200dpi	800dpi
		With Function Upgrade option	600dpi	
Scan Mode:	➤ Standard ➤ Photo ➤ OCR ➤ Filing			
Image Adjustment:	➤ Brightness ➤ Contrast ➤ Threshold ➤ Gamma Adjustment ➤ Halftone Pattern			
Stamp:	Supported			
Endorse:	Date/ Page number/ Text			

Fax Option Features:

New Features:

- Direct SMTP
- IP Fax (T.38)
- Fax Forward to Folder
- E-mail notification of Inbound Fax to Folder
- LDAP Support with Fax address search
- Program Parameter Switch with Web Image Monitor
- Internet Fax T.37 Full mode
- IP Fax (T.38)

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General Fax Features:

Circuit:	➤ PSTN ➤ PBX	
Compatibility:	➤ ITU-T (CCITT) G3,	
Resolution:	➤ 8 x 3.85 line/mm, 200 x 100dpi: Standard Mode ➤ 8 x 7.7 line/mm, 200 x 200dpi: Detail Mode ➤ (For transmission) 8x15.4 line/mm: Fine Mode	
Compression method:	➤ MH ➤ MR ➤ MMR ➤ JBIG	
Scanning speed (DF Used):	➤ 1 sec. (A4/LT SEF, Standard/Detail mode), ➤ sec.(A4/LT SEF, Super Fine mode) ➤ *ITU-T No1 chart	
Number of Pages Scanned per Minute: (DF Used)	A4/LT SEF	➤ Standard mode: 27pages /minute ➤ Detail mode: 27pages /minute ➤ Fine mode: 17 pages /minute
	A4/LT LEF/image rotation	➤ Standard mode: 31 pages /minute ➤ Detail mode: 30 pages /minute ➤ Fine mode: 27 pages /minute
Modem speed:	➤ 33.6K – 2,400bps (G3, Standard with Automatic Shift Down) ➤ (33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, 2400 bps)	
Transmission speed:	➤ G3: Approx.2 seconds (200x100 dpi, JBIG, ITUT #1 chart TTI off, memory transmission) ➤ G3: Approx.3 seconds (200x100dpi, MMR, ITUT #1 chart, TTI off, memory transmission)	
SAF Memory Size:	Standard	4MB (Approx.320 pages)
Page Memory Size:	Standard	4MB
Memory backup:	12 hours	
Smoothing:	Standard (600dpi)	
TTI/RTI:	Standard	
CSI:	Standard	
Quick dial/ Speed dial:	Standard: 150 numbers including 32 quick dials	
Group dial:	Standard: 10 groups (100 numbers per 1 group)	
Program:	No	
Redial:	Standard (Last 10 destinations)	
AI Memory dial:	No	
Direct fax number entry:	Standard	
Dual access:	Standard	
User Code:	Std. 50 Codes, 8 digit	
Auto document:	No	
Page counter:	Standard	
Auto reduction:	Standard (A3→B4, A3→A4, B4→A4)	
Wild cards:	Standard	
Summer time (day light saving time):	Yes	
SUB/SID code	Yes	
ID code programming:	Standard (4 digits) only for Memory Lock	
Programming by OMR:	No	
User function key:	Standard (3 keys)	
Night timer:	No	
Energy saver:	Standard	

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General Fax Features:

LCD prompt:	Standard
Remaining memory indication:	Standard
Clock adjustment:	Standard
User parameter setting:	Standard
Memory file transfer:	No
Local Storage	No

Internet Fax Basic Specification:

Requirement of Mainframe:	➤ G3 fax option and Function Upgrade Option are required.
Number of Address:	➤ 150
E-mail Address Input:	➤ From operation panel, Web Image Monitor, SmartDeviceMonitor for Admin
Attention:	➤ "To" max 300 attentions
Destination Combination:	➤ Internet Fax + G3 Fax ➤ Internet Fax to PC + G3 Fax
Network:	➤ LAN: Local Area Network ➤ Ethernet/10Base-T ➤ 100Base-TX ➤ IEEE1394 (IP over 1394) ➤ IEEE802.11b (wireless LAN)
Transmit function:	➤ E-mail
Scan line density:	➤ 200 x 100 dpi (Standard character) ➤ 200 x 200 dpi (Detail character) ➤ 200 x 400 dpi (Fine character)*1
Original size: Scanning width:	➤ A3 *1 ➤ B4 *1 ➤ A4 ➤ DLT*1 ➤ Letter ➤ Legal
Communication Protocols:	Transmission ➤ SMTP ➤ TCP/IP Reception ➤ POP3 ➤ SMTP ➤ IMAP4 ➤ TCP/IP
E-mail format:	➤ Single/Multi-part ➤ MIME Conversion ➤ Attached file forms: TIFF-F (MH, MR *1, MMR*1 compression)
Authentication method:	➤ SMTP-AUTH ➤ POP before SMTP ➤ A-POP
Internet communication:	➤ Send and receive e-mail with a computer that has an e-mail address
E-mail send functions:	➤ Automatic conversion of sent documents to e-mail format and e-mail transmission. Memory transmission only.
E-mail receive functions:	➤ Automatic detection and printing of appended TIFF-F (MH) files and ASCII text. Memory reception only.

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Internet Fax Basic Specification:

Compression method	➤ MH ➤ MR ➤ MMR
File Format	➤ TIFF-F
Scan Mode	➤ Text: for text original ➤ Photo: for photo mode original
Attached Subject	➤ 5 programs ➤ Default: "Urgent"/ "High" ➤ Enter up to 64 characters per subject

*1 Full mode

IP- Fax Features:

Network:	➤ LAN: Local Area Network ➤ Ethernet 10base-T/100base-TX ➤ IEEE1394 (IP over 1394), ➤ IEEE802.11b (wireless LAN)
Scan line density:	➤ 8 x 3.85 lines/mm, 200 x 100 dpi (Standard character), ➤ 8 x 7.7 lines/mm, 200 x 200 dpi (Details character), ➤ 8 x 15.4 lines/mm (Fine character),
Original size:	➤ Maximum A3 or 11" x 17" (DLT)
Maximum scanning size:	➤ Standard: A3, 297mm x 432mm ➤ Irregular: 297mm x 1200mm
Transmission protocol:	Recommended: ➤ T.38 Annex ➤ TCP ➤ UDP/IP communication ➤ SIP (RFC 3261 compliant) ➤ H.323 v2
Compatible machines:	➤ IP-FAX compatible machines
IP-FAX transmission function:	➤ Specify an IP address and send faxes to an IP FAX compatible fax through a network. ➤ Also capable of sending faxes from a G3 fax connected to a telephone line via a VoIP gateway.
IP-FAX reception function:	➤ Receive faxes sent from an IP-FAX compatible fax through a network. ➤ Also capable of receiving faxes from a G3 fax connected to a telephone line via a VoIP gateway

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LAN – FAX Driver:

Requirement of Mainframe:	➤ G3 fax option and Function Upgrade Option are required.
Paper Size:	➤ A3 ➤ DLT ➤ B4 ➤ A4 ➤ Letter (default) ➤ Legal ➤ B5 ➤ A5
Resolution:	➤ Detail (200 x 200 dpi) *default ➤ Standard (200 x 100 dpi)
Gray Scale:	➤ Off ➤ On normal *(default) ➤ On lighter
Number of Address:	➤ 300
OS:	➤ Windows 95/98/Me/XP ➤ Windows NT4.0 ➤ Windows2000/2003 (Gray Scale is only available for the driver of Windows 9x)
Interface	➤ Ethernet (100Base-TX/ 10BASE-T) ➤ Wireless LAN Interface (IEEE802.11b) ➤ IEEE 1394 (IP over)
Protocol	➤ G3
TTI	➤ Yes
Compression Method	➤ MMR
Send Later	➤ Yes
Page Rotation	➤ Yes
Internet Fax	➤ Yes
Local Storage	➤ No
MIB	➤ Yes
Transfer Request	➤ No
Cover Sheet Editor	➤ Yes
Address Book Import/Export	➤ Yes

Program FAX Parameter Switch With Web Image Monitor (WIM):

Just Size Printing	On/Off
Convert to PDF when Transferring to Folder	On/Off
Automatic Printing Report	
Journal	On/Off
Immediate Transmission Result Report	On/Off
Communication Result Report	On/Off
Memory Storage Report	On/Off
Polling RX Result Report	On/Off
Polling RX Reserve Report	On/Off
Confidential File Report	On/Off
PC Fax Result Report	On/Off
Inclusion of Part of Image	On/Off
E-mail Settings	
Error E-mail Notification	On/Off
Display Network Errors	On/Off

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Program FAX Parameter Switch With Web Image Monitor (WIM):

Journal Notification by E-mail	On/Off
Response to RX Notice Request	On/Off
Select Destination Type Priority	Paper Output/Electronic Output

Security Features:

HDD Data Protection	Supported
Data Overwrite Security (*1) Type D	Y
Authentication (*2)	
Windows Authentication	Y
LDAP Authentication	Y
Basic Authentication	Y
User Code Authentication	Y
Notes Authentication (*3)	Y
Encryption	
Address Book Encryption	Y
Authentication Password Encryption	Y
Print Data Via IPP (SSL)	Y
Others	
Network Protocol On/Off	Y
IP Filtering/ Access Control	Y
Mask Type for Copying Type A (*4)	Y

(*1) Option required. Please refer "Data Overwrite Security Function" for details below

(*2) Please refer "printer driver specification" for details of compatible PDL.

(*3) Optional Server Software required

(*4) Option required.

Data Overwrite Security (DOS) function: (Optional DOS Unit Type D is required)

This function can overwrite copy, print and scan data that is stored on internal hard drive by writing over the latent image with random sequences of 1's and 0's. This enables to access or reconstruct residential data virtually impossible.

- The DOS solution was designed to meet mainly government, military and super major accounts' requirement for document security while using digital copiers.
- The DOS solution was designed to help sell more mainframes by adding a security solution for classified documents handling applications.
- DOS function can be used as a door opener to key major account customers such as government and military who are converting copying machine from analog to digital technology.

Overwrite method

In DOS Unit Type C/D, customers can select from three type of overwrite methods provided:

- 1) NSA Standard: Random data => Random data => Null data (total 3 times) The random data is written over the temporary data twice, and then the null data is written over once.
- 2) DoD (Department of Defense of USA) Standard
- 3) Random Data Overwrite

(Note1: DOS Unit type C/D adopted NSA and DoD method because these are the most commonly used methods in PC.)

(Note2: DOS Unit is an optional item)

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Overwrite timing

Overwriting starts automatically once a copy, print and scanner job is completed.

*Copier, printer and scanner functions take priority over the Data Overwrite function. If copier, printer and scanner job comes while overwriting the previous job data, the overwriting process will be automatically interrupted until the job is completed.

User Authentication:

	Type of User Authentication			
	Windows	LDAP	Basic	User Code
Authentication Type	External *1		Internal *2	
Authentication Method	NTLM *3(&LDAP *4)	LDAP	Not applicable	Not applicable
Access Restriction	Yes	No	Yes	Yes
No Login for Specific Features	No	No	No	Yes
Color Only Authentication	No	No	No	Yes

Note:

*1: Based on the information at directory server.

*2: Based on the information at device.

*3: NTLM is abbreviation for NT LanMan, which Microsoft developed for their challenge and response authentication.

*4: LDAP is used for Email address delivery, as NTLM does not have the way.

◆ External Authentication

It works using user information from a remote account server (Directory Server)
PC login name and password is used for verification of user.

➤ Windows Authentication

- ❖ For customer who use Microsoft Active Directory as directory sever
- ❖ "Access Restriction" * available

➤ LDAP Authentication

- ❖ For customer who use directory server other than Microsoft Active Directory
- ❖ "Access Restriction" * not available

◆ Internal Authentication

Works using user information stored in the machine. This is for customers who do not use a directory server.

➤ Basic Authentication

- ❖ "Access Restriction" * available

➤ User Code Authentication

- "Access Restriction" * available

Requirement

Windows Authentication

- Function Upgrade Kit
- Windows 2000 Server/ Server 2003 Active Directory
- User accounts in the directory server
- LAN manager authentication level other than "refuse NTLM"
- SSL (TLS version 1) installation in the directory server (Not mandatory)

LDAP Authentication

- Function Upgrade Kit
- LDAP version 3
- User accounts in the directory server
- SSL (TLS version 1) installation in the directory server (Not mandatory)

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Network Protocol On/Off:

This function can close the specific Network Protocol such as SNMP and FTP through mainframe or device management utilities (WebImageMonitor/ SmartDeviceMonitor) to prevent the following the threats;

- Destruction, corruption, and modification of the file system
- Possibility of acting as a server for relaying viruses
- Possibility of successful DoS (Denial of Service) Attack
- Theft of user name or password

SNMPv3 support:

This function can establish an encrypted communication environment via SNMPv3 when making machine setting by SmartDeviceMonitor for Admin.

Requirement

- Network Administrator's [Encryption Password] setting.
- [Encryption Key] settings of [SNMP V3] in SmartDeviceMonitor for Admin.

Remarks

- [Permit SNMP V3 communication] setting is required as follows;
 - [Encryption only] native mode for all SNMP V3 support devices in your network.
 - [Encryption /Clear Text] mixed mode in case of non-SNMP V3 support devices in your network.

Encryption of PDF Password:

There is vulnerability in secure PDF as its password is clear text. This function can encrypt passwords for secure PDF files transmission. Assignment of a group password for both machine and Desk Top Binder Lite is required.

Requirement

- Network Administrator assignment by Administrator Authentication.
- Assignment of a group password for both machine and Desk Top Binder Lite.
- Network Administrator need to share the group password specified on the machine with users.

Remarks

- Network Administrator can set this function.
- Enter the password for PDF files using up to 32 alphanumeric characters

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Driver Encryption Key (PCL & RPCS Driver):

This function is used for use of printing under user authentication.

This enables encrypt login password of user authentication for printing between printer driver and MFP in order to protect them from unauthorized access.

Requirement

- Network administrator is requested to let users know the driver encryption key up to 32 alphanumeric characters specified on the machine. Then users are requested to register this encryption key to their printer drivers. Make sure to enter the same driver encryption key as that specified on the machine.

Important Notice

- [Printer Job Authentication] setting is required as follows;
 - [All] Login name and password is required for all printing job. This means only PCL/RPCS can be used.
 - [Simple] Driver which does not have login name and password such as PostScript/Mini Driver/driver for host printing can be used.

Unauthorized Copy Control Features (RPCS Driver):

This enables eliminating the risk of illegal copy of confidential documents in an office.

Data Security for Copying (Optional Copy Data Security Unit is required):

This function can prevent unauthorized copy by making a special masking pattern with embedded message when originals print. When this is enable it makes a gray-out output when copy. Confidential documents can never be duplicated under MFP with optional Copy Data Security Unit. The embedded messages appear when copy under MFP without optional Copy Data Security Unit.

Requirement

- Optional Copy Data Security Unit

Limitation

- A small margin (approx. 4mm) of the special masking pattern will remain on the edge of the copy. This masking pattern is copy before MFP detects the scanned original is a "Data Security for Copying".
- Following functions are deactivated or eliminated to avoid any possible security hole under installation of Optional Copy Data Security Unit on MFP.
 - Scanner function: Scan to E-mail/Folder/Twain.
 - Fax (FSM requires that the fax option not be installed and will be instructed not to install fax option)
 - Copy reduction ratio: Less than 50% and below will be deactivated.

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Utility Software:

Software	Description
Font Manager (Win95/98/ME, NT4, 2000, XP, Server 2003):	■ The Font Manager 2000 installs the screen fonts in your ■ Windows 95/98/Me/NT 4.0/2000/XP/Server 2003. Installing the screen fonts for the printer fonts improves the WYSIWYG quality.
Smart Device Monitor for Admin:	■ A utility for administrators who need to manage and monitor printers over the network. ■ The Smart Device Monitor for Admin for Windows 95/98/Me/NT 4.0/2000/XP/Server 2003 ■ Setup utilities are also available. ■ Our device monitoring software has been renamed from Smart Net Monitor to Smart Device Monitor. Operation of Smart Device Monitor is the same as SmartNetMonitor. In case you already have SmartNetMonitor installed in your PC overwrite it with Smart Device Monitor, software settings and log data will be carried over.
Smart Device Monitor for Client (Win95/98/ME, NT4, 2000, XP, Server 2003)	■ A utility enables you to access networked printers to print, to monitor and to receive notices without a server. This utility also enables the following features: ◆ Recovery Printing ◆ Parallel Printing ■ Our device monitoring software has been renamed from SmartNetMonitor to SmartDeviceMonitor. Operation of Smart Device Monitor is the same as Smart Device Monitor. In case you already have SmartNetMonitor installed in your PC overwrite it with Smart Device Monitor, software settings and log data will be carried over.
Device Graphic Update Module	■ Device Graphic Update Module provides bitmap images used to represent the various statuses of devices graphically within Smart Device Monitor or Web Smart Device Monitor. Available on website.
DeskTop Binder	■ With the DeskTopBinder Lite you can connect client computers to I/O devices. You can efficiently input, edit and output data using your computer.
ICM profiles	■ The Image Color Matching (ICM) profiles work under Windows 98/Me/2000/XP/Server2003.
Printer Utility for Mac	■ This is a utility for Macintosh that provides access to several network printing administrative features..
PS Descriptions	■ PDD for Mac ■ By interacting with the Adobe PostScript 3 controller in the device, this PPD is able to produce an accurate representation of the screen image.
Mac OS X PPD Installer	■ This PPD installer is used to install a PPD (Postscript Printer Description) file on Mac OSX. PPD files contain descriptions of printer capabilities such as paper sizes, number of input trays and duplexing. Once the PPD file is installed on the system using the PPD installer, the PS driver that comes bundled with Mac OS X can use the information in the PPD to control the print device and enable full functionality. It supports the Mac OS X 10.1 or later. Please see the Readme file for information about compatibility with versions of Mac OS X.
ATM	■ The Adobe Type Manager (ATM) supports screen view and printing of PostScript Type 1 fonts by rastrising. With the ATM, PostScript fonts can also be printed on printers. ■ It supports Mac OS 8.6 - 9.1 and Mac OS 9.1 using Mac OS X Classic.

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Software	Description
ColorSync Profiles	- ColorSync is the industry-standard tool for managing color across multiple devices. - Various ColorSync Profiles which includes data of devices are provided.
LAN FAX Driver	This software enables you to fax documents directly from your computer. The Address Book Editor and Cover Sheet Editor are installed as well. This software requires the optional fax unit to be installed on the machine. New M9 Driver
RPCS Driver	Printer driver for Windows: It is optimized for the Windows GDI. High performance printing can be expected. Regularly used settings can be saved as a "one-click icon" in the driver interface. These settings can be reused easily by clicking the icon.
PCL 6 Driver	Printer driver for B/W printing and Color printing in Windows. It supports HP PCL XL commands and is optimized for the Windows GDI. High performance printing can be expected.
PCL 5c Driver	Printer driver for color printing in Windows. It supports HP PCL 5c commands. Basically, this is the same driver as PCL5e with color printing functionality added.
Post Script Driver	By interacting with the Adobe PostScript 3 controller in the device, this driver is able to produce an accurate representation of the screen image.
IEEE 1394 Printer Removal Utility	- This utility completely removes all printers connected via IEEE 1394 interface from your Windows 2000/XP/Server 2003 system. - This will prepare your Windows 2000/XP/Server 2003 system for the proper reinstallation of IEEE 1394 printers.
USB Print	USB Printing Support is a USB device driver for the Windows 98/Me environment. This utility can connect the device to a Windows 98/Me PC with a USB cable.
Network TWAIN Driver V4.12	TWAIN scanner driver for network connections with new features Combine/Series, compatible with SNMP V3 and Network Connection Tool.

Total Counter Access

- User Tools / Counter → Counter → OK → Print → Start
- User Tools / Counter → System Settings → OK → Administrator Tools → OK → Display / Print Counter → OK → Print → Start
- User Tools / Counter → Printer Features → OK → List/Test Print → OK → Config. Page OK.
This is a Total Only
- Maximum 7 digits

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Counter Specification:

Page Count:

Application	Mode	FC copy counter	BK copy counter	FC print counter	BK print counter	FC total counter	BK total counter
Copy	Full Color	+ 1				+ 1	
	B&W		+ 1				+ 1
Print	Color			+ 1		+ 1	
					+ 1		+ 1
	B&W				+ 1		+ 1
FAX	Black				+ 1		+ 1
	Color (Cyan or Magenta)			+ 1		+ 1	

Development Count:

Application	Mode	BK counter	CMY counter
Copy	Full Color	+ 1	+ 3
	B&W	+ 1	
Print	Color	BK + one of CMY	+ 1
		BK + two of CMY	+ 2
		BK + C + M + Y	+ 3
		One of CMY	+ 1
		Two of CMY	+ 2
		C + M + Y	+ 3
	B&W	+ 1	
FAX	Black	+ 1	
	Color (Cyan or Magenta)		+1

Special Exception Counts:

OHP is available only in color mode, so even if the original is B/W, it will be counted as "color." This is because black ink cannot be attached to OHP due to its characteristic.

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Installation Requirements:

Temperature Range: 10°C to 32°C (50°F to 89.9°F)
 Humidity Range: 15% to 80% RH
 Ambient Illumination: Less than 2,000 LUX (do not expose to direct sunlight.)
 Ventilation: Room air should turn over at least 3 times/hr/person or more
 Ambient Dust: Less than 0.10 mg/m³

Avoid an area, which is exposed to sudden temperature changes. This includes:

- Areas directly exposed to cool air from an air conditioner.
- Areas directly exposed to heat from a heater.

Do not place the machine in an area where it will be exposed to corrosive gases.

Do not install the machine at any location over 2,000 m (6,500 ft.) above sea level.

Place the machine on a strong and level surface. (Inclination on any side should be no more than 5mm.)

Do not place the machine where it may be subjected to strong vibrations.

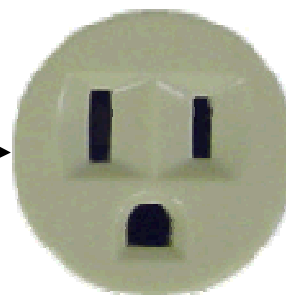
Machine Level:

Front to back: Within 5 mm (0.2") of level

Right to left: Within 5 mm (0.2") of level

Power Requirements

- Input voltage level: 110 -120 V, 60Hz: 3.6 A
- Permissible voltage fluctuation: ±10%
- Do not place anything on power cord.
- The required wall outlet is a NEMA 5-15R (receptacle) →

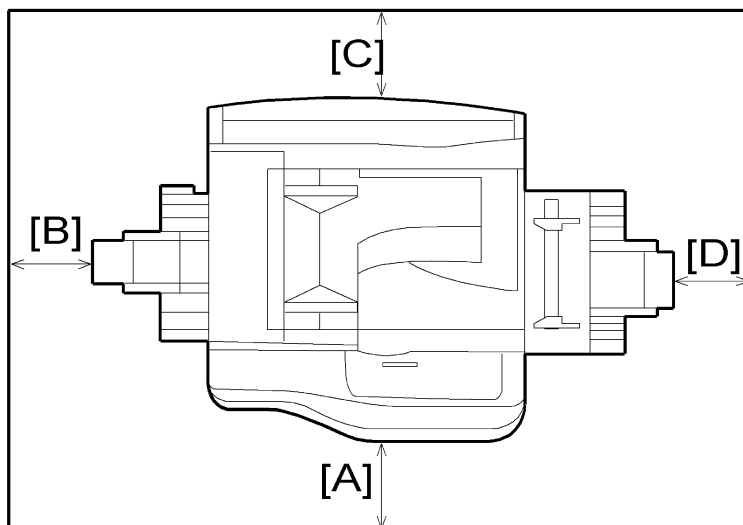


Installation Times:

Unit	Installation Time (Minutes)	Unit	Installation Time (Minutes)
Main Frame	20	Duplex Unit	15
ARDF/ADF	10	Fax Option	10
Platen Cover	5	Postscript 3	5
Two Tray Paper Bank	10	IEEE1394	5
One Tray Paper Bank	10	IEEE 1284	5
Function Upgrade option:	15	IEEE 802.11b	5
Blue Tooth	5	PictBridge:	5
Copy Data Security Unit	10		

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Machine Space Requirements:



A: In Front:	440 mm (17.3")
B: Left:	520 mm (20.5")
C: Rear:	50 mm (2.0")
D: Right:	530 mm (20.9")

PM Table:

Mainframe: B229

Unique/Common
 U: Unique for this model
 C: Common with listed model

Part Number	Description	Q'ty/Unit	PM Interval		Unique or Common
			75k	150k	
Paper Feed					
B0392711	Friction Pad	1	C	R	Common (B259)
B0392740	Paper Feed Roller	1	C	R	Common (B259)
GJ Engine Unit (B2290110)* ¹					
B2292012	Maintenance Unit	1		R	U
B2293267	Rotary Encoder Unit	1		R	U
B2293203	Paper Transport Belt Unit	1	C	R	U
AD027017	Charge Roller	1		R	U
Others					
B2290643	Waste Ink Tank	1		R	U

Note *1: GJ engine unit includes the above listed 4 items of PM parts. It is one of ideas to replace whole engine unit when performing PM, instead of replacing 4 items individually.

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Auto Document Feeder: B813

Unique/Common
 U: Unique for this model
 C: Common with listed model

Part Number	Description	Q'ty/Unit	PM Interval (Originals)	Unique or Common
			80k	
A8592141	Belt - Paper Feed	1	R	Common (B259)
B3871671	Reverse Roller	1	R	Common (B259)
B3872161	Pick-up Roller	1	R	Common (B259)

Auto Reverse Document Feeder: B814

Unique/Common
 U: Unique for this model
 C: Common with listed model

Part Number	Description	Q'ty/Unit	PM Interval (Originals)	Unique or Common
			80k	
A8592141	Belt Paper Feed	1	R	Common (B259)
A8592241	Reverse Roller	1	R	Common (B259)
B3862171	Pick-up Roller	1	R	Common (B259)

Paper Tray Unit (1 tray): B385

Unique/Common
 U: Unique for this model
 C: Common with listed model

Part Number	Description	Q'ty/Unit	PM Interval (Originals)	Unique or Common
			120k	
A2672751	Paper Feed Roller	1	R	Common (B259)
B3902831	Friction Pad	1	R	Common (B259)

Paper Tray Unit (2 trays): B384

Unique/Common
 U: Unique for this model
 C: Common with listed model

Part Number	Description	Q'ty/Unit	PM Interval (Originals)	Unique or Common
			120k	
A2672751	Paper Feed Roller	2	R	Common (B259)
B3902831	Friction Pad	2	R	Common (B259)

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Contact Information:

Name	Contact
Technical Services Call Center (Hotline)	Ricoh: (800) 537-4264 Savin/Gestetner: (800) 291-6044 Lanier: (800) 333-3147
Application Help Desk (Software Issues)	Ricoh Phone Card: 2 Call - 000781MIU, 5 Call - 000900MIU Savin Phone Card: 2 Call - 12992, 5 Call - 12993 Gestetner Phone Card: 2 Call - 12994, 5 Call - 12995
National Reclamation Center	(800) 557-4264 http://www.nrc-usa.com
Technology Solutions Center Web Site	http://www.tscweb.net
Ricoh Web Site	http://www.ricoh-usa.com/
Savin iLINC Web Site	http://w3.savin.com
Gestetner ILINE Web Site	http://W3.gestetnerusa.com
Lanier Web Site	http://www.lanier.com
Headquarter Web Sites	Ricoh Corporation: http://www.ricoh-usa.com Savin Corporation: http://www.savin.com Gestetner Corporation: http://www.gestetnerusa.com/
Fax On Demand	(973) 808-3590
Material Safety Data Sheets	(800) 336-MSDS (6737)
Eastern Training Center	(973) 808-7646 http://www.ricohuniversity.com
Western Training Center	(714) 566-3692 http://www.ricohuniversity.com
Lanier Education Center	(678)-824-3000

Special Tools:

Unique or Common:
U: Unique for this model
C: Common with listed model

Item	Part Number	Description	Q'ty	Unique or Common
1	B6455010	SD Card	1	C (General)
2	B6456705	PCMCIA Card Adapter	1	C (General)
3	B6456810	USB Reader/Writer	1	C (General)
4	VSSM9000	Digital Multimeter – FLUKE87	1	C (General)
5	C4019503	20X Magnification Scope	1	C (General)
6	A2579300	Grease Barrierta – S552R	1	C (General)
7	52039501	Silicon Grease G-501	1	C (General)
8	A0929503	C4 Color Test Chart (3 pcs/set)	1	C (General)
9	A2929500	Test Chart – S5S (10 pcs/set)	1	C (General)
10	---	Ricoh System Information Tool (Support Tool Version 2) - Basic version - Mail version	1 1	C (General)
11	G0219350	Loop Back Connector	1	C (General)
12	G5885140	Plug - IEEE1284 Type C (Note)	1	C (General)

NOTE: Loop-back Connector (item 11) requires Plug - IEEE1284 Type C (item 12).

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Product Order Numbers:

Product Code	EDP Code	BOM	Lanier ID	Item	Model Name
B229	412732	Gestetner: GS 106 Lanier: N/A Ricoh: Aficio 615C Savin: SGC 1506	216-1232	16/5 cpm Mainframe includes standard 1 x 250 Trays 100 Sheet Bypass, One-sheet Bypass, and Basic Printer/Scanner/ Copy functions	Gestetner GS 106 Lanier LD215c Ricoh Aficio 615C Savin SGC 1506
B813	412741	---	216-7149	ADF NOTE: cannot install platen cover or ADF or ARDF at the same time	ADF DF 2000
B814	412743	---	216-7150	ADF NOTE: cannot install platen cover or ADF or ARDF at the same time	ARDF DF 2010
B406	412524	---	481-0397	ADF NOTE: cannot install platen cover or ADF or ARDF at the same time	Platen Cover Type 1018
B806	412745	---	216-7151	Duplex Unit AD 2000 NOTE: Duplex, Cabinet and 2 tray paper bank cannot be combine.	Duplex Unit AD2000
B267	412747	---	216-7152	Fax Option Type MP C1500	Fax Option Type C1500
B271	412752	---	216-7153	256MB RAM, 40GB HDD,	Function Upgrade Option Type C1500
B850	412753	---	216-7154	PostScript3 Unit Type MP C1500	PostScript3 Unit Type C1500
B825	412867	---	481-7057	Used in conjunction with PictBridge Option (Camera Direct Print Card Type A and Function Upgrade Option Type C1500 required)	USB 1.1 Host Interface Unit Type A
B824	412868	---	216-7170	Used in conjunction with USB Host Interface Unit Type A (USB Host Interface Unit Type A Function and Upgrade Option Type C1500 required)	Camera Direct Print Card Type A
B385	412560	---	481-0387	PS460 1 tray (500 sheets paper tray) PS460 and PS450 cannot be installed at the same time	PS460 1 tray paper bank
B384	412557	---	481-0388	PS450 2 tray (2 500 sheets paper bank) PS460 and PS450 cannot be installed at the same time. NOTE: Duplex, Cabinet and 2 tray paper bank cannot be combine	PS450 2 tray paper bank
B274	412934	---	---	Accessibility Handle Type B NOTE: accessibility handle is option for the PS460 or the PS450 (the PS450 can use a maximum of two handles	Accessibility Handle Type B
B679	411699	---	481-0786	Note: IEEE1394, IEEE1284, Wireless LAN Interface (802.11b), or Bluetooth cannot	IEEE 1284 Interface Board Type A

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Product Code	EDP Code	BOM	Lanier ID	Item	Model Name
				be installed at the same time.	
B826	412866	---	216-7092	Note: IEEE1394, IEEE1284, Wireless LAN Interface (802.11b), or Bluetooth cannot be installed at the same time.	Bluetooth Interface unit Type 3245
B581	412995	---	481-0683	Note: IEEE1394, IEEE1284, Wireless LAN Interface (802.11b), or Bluetooth cannot be installed at the same time.	IEEE 1394 Interface Board Type B
G813	402378	---	481-0907	Note: IEEE1394, IEEE1284, Wireless LAN Interface (802.11b), or Bluetooth cannot be installed at the same time.	IEEE 802.11b Interface Type H
B770	412320	---	481-0933	Copy Data Security Unit Type A	Copy Data Security Unit Type A
B735	412152	---	216-7093	DataOverwriteSecurity Unit Type D	DataOverwriteSecurity Unit Type D
B433	410781	---	481-0393	Hand Set NOTE: Fax option is required	Hand Set Type 1018
B870	413012	---	N/A	Optional Counter Interface Unit Type A (20-pin I/F option. Required to attach card reader system)	Optional Counter Interface Unit Type A
B452	411013	---	481-0478	Key Counter Bracket	Key Counter Bracket Type 1027
G874	402704	---	N/A	JAVA VM Card Type D	JAVA VM Card Type D
B863-00	412755	---	---	Ricoh Branding Emblem	Ricoh Aficio 615C branding emblem
B863-01	412756	---	---	Savin Branding Emblem	Savin SGC 1506 branding emblem
B863-02	412757	---	---	Gestetner Branding Emblem	Gestetner GS 106 branding emblem
---	002674MIU	---	---	All Ricoh print drivers, scanner driver, and operator manuals on three CD's	Ricoh print driver CD
---	002675MIU	---	---	All Savin print drivers, scanner driver, and operator manuals on three CD's	Savin print driver CD
---	002676MIU	---	---	All Gestetner print drivers, scanner driver, and operator manuals on three CD's	Gestetner print driver CD
---	413422	---	---	FAC31 small cabinet NOTE: Duplex, Cabinet and 2 tray paper bank cannot be combine	Small Cabinet
---	413423	---	---	FAC32 large cabinet NOTE: Duplex, Cabinet and 2 tray paper bank cannot be combine	Large Cabinet

It is NOT recommended to install a duplex unit, two tray paper bank and cabinet at the same time.

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Supply Order Numbers / Yields:

Item	EDP Code/ Lanier ID	Name	Target Yield
Gestetner GS 106			
Ink Black	85254	Print Cartridge Black MP C1500	9,000prints/cartridge
Ink Yellow	85257	Print Cartridge Yellow MP C1500	3,000prints/cartridge
Ink Magenta	85256	Print Cartridge Magenta MP C1500	3,000prints/cartridge
Ink Cyan	85255	Print Cartridge Cyan MP C1500	3,000prints/cartridge
Marker 30 Fax Stamp	1600089	Marker Stamp Type 30	1 oz carton of 4 markers
Lanier LD215c			
Ink Black	480-0384	Black Print Cartridge for LD215c	9,000prints/cartridge
Ink Yellow	480-0387	Yellow Print Cartridge for LD215c	3,000prints/cartridge
Ink Magenta	480-0386	Magenta Print Cartridge for LD215c	3,000prints/cartridge
Ink Cyan	480-0385	Cyan Print Cartridge for LD215c	3,000prints/cartridge
Marker 30 Fax Stamp	481-0483	Marker Stamp Type 30	1 oz carton of 4 markers
Ricoh Aficio 615C			
Ink Black	888523	Print Cartridge Black MP C1500A	9,000prints/cartridge
Ink Yellow	888524	Print Cartridge Yellow MP C1500A	3,000prints/cartridge
Ink Magenta	888525	Print Cartridge Magenta MP C1500A	3,000prints/cartridge
Ink Cyan	888526	Print Cartridge Cyan MP C1500A	3,000prints/cartridge
Marker 30 Fax Stamp	334049	Marker Stamp Type 30	1 carton of 4 markers
Savin SGC 1506			
Ink Black	5254	Print Cartridge Black C1506	9,000prints/cartridge
Ink Yellow	5257	Print Cartridge Yellow C1506	3,000prints/cartridge
Ink Magenta	5256	Print Cartridge Magenta C1506	3,000prints/cartridge
Ink Cyan	5255	Print Cartridge Cyan C1506	3,000prints/cartridge
Marker 30 Fax Stamp	1600089	Marker Stamp Type 30	1 carton of 4 markers

Note: *A4, 5% chart is used to measure the above yield

Target Reliability:

Item	Description
ACV	3k prints/month
Max CV	5k prints/month
PM Interval	75k and 150k prints (75k prints interval is only for cleaning required)

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Initial Recommended Service Parts:

Part Number	Description	Quantity	Remarks
B2295500	POWER SUPPLY UNIT	1	Replace as needed
B2295531	CONTROLLER BOARD-PCB CTL	1	Replace as needed
B2295536	SD Card Printer/Scanner	1	Replace as needed
B2299590	NVRAM Zero Counter	1	Replace as needed
G3325720	SDRAM 256Mb PC133	1	Replace as needed
B2296111	PCB: BCU	1	Replace as needed
B2296041	IPU PCB	1	Replace as needed
B2296080	IOB PCB	1	Replace as needed
B2295000	Power Pack	1	Replace as needed
B2295672	FCU PCB	1	Replace as needed
B2296185	PCB: MBU	1	Replace as needed

NOTE: Refer to PM Table for additional initial recommended part numbers.

Service Information:

Firmware Structure:

SD card will be used to upgrade the B229 Firmware (common with B140)

Firmware SD Card	Firmware Type
Controller	System/Copy
BCU	Engine
FCU	Fax
NIB	NRS
MBU	Fax Applications
PS3	PostScript 3
NetFile	NetFile
Printer	Printer
Rfax	Rfax
Scanner	Scanner
WebSystem	WebSystem
DESS	Data Encryption Software Support
Printer Font	ps&pdf Font
PictBridge	PictBridge
Psfont	psfont

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Service Programs to Note:

SP Mode	Description	Note
SP 1-922 1	SubScan: Send Adj	Adjusts the sub scan line to adjustment printed sheet with SP 3-109-4.
SP 2-020 (1-2)	Head Maint	Executes the print head cleaning for each color. Check the nozzle check pattern with SP 3-109-3.
SP 2-100	Special Maint	Removes remaining ink from the sub tanks for replacing the engine unit or transporting the machine.
SP 2-101	Special Cleaning	Executes the head cleaning for each printer. However, this mode uses 32.0ml of ink for this cleaning DO NOT PREFORM THIS ADJUSTMENT UNLESS HEAD MAINT HAS BEEN PREFORMED AT LEAST THREE TIMES AND REFRESHING HAS BEEN DONE TWICE. SEE FSM FOR DETAILS.
SP 2-508	Exhalation Interval	Multiple printing may cause blocked nozzles. The exhalation prevents a nozzle from being blocked.
SP 3-002	Head: Gap Adj	Adjusts the head gap referring to the adjustment with SP 3-109-1 or 3-109-2.
SP 3-109 (1 – 4)	Print: Pattern	Prints the adjustment sheet for each print head adjustment.
SP 3-112 –1	Print Mode Set	Disables the returning scanning (Front to Rear: home position) to keep a high quality whatever a job is printed. This SP will slow the machine down.
SP 4-020	Dust Check	Enables or disables the dust detection on the ADF scanning glass or the white plate
SP 4-417	IPU Test Pattern	Prints 13 different test patterns
SP 4-440	Saturation Adj	Adjusts the color saturation level for copying.
SP 4-688	DF Density Adj	Adjusts the white shading parameter when scanning an image with the ARDF.
SP 4-907	SBU Pattern	The controller PCB processes these test patterns.
SP 5-045	Counter Method	Selects the counting method charge mode
SP 5-056	Coverage Counter	Displays or does not displays the coverage counter.
SP 5-104	A3/DLT Double Count	Selects whether the machine counts twice for each A3/DLT.
SP 5-150	Bypass Long Paper	Determines whether a transfer sheet from the bypass is used or not.
SP 5-178	Copy Data Security Settings	The copy data security will not operate correctly after installation until this SP is enabled.
SP 5-307	Summer Time	Enables or Disables Summer Time (Daylight saving time).
SP 5-404	User Code Clear	Clears the counts for the user codes assigned by the key operator to restrict the use of the machine.
SP 5-801	Memory Clear	Clears memory for different functions and features.
SP 5-828-90	Telnet On/Off	Enables or disables Telnet
SP 5-828-91	Web On/Off	Enables or disables on/off WIM
SP 5-832	HDD	Used to initialize the HDD
SP 5-839	IEEE 1394	Used to set IEEE 1394 settings
SP 5-840	IEEE 802.11b	Used to set IEEE 802.11b settings
SP 5-841	Supply Name Setting	Press the User Tools key. These Names appear when the user presses the inquiry button on the User Tools Screen.
SP 5-844	USB	Used to set USB settings

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SP Mode	Description	Note
SP 5-845	Delivery Server Setting	Provides items for Delivery Server setting
SP 5-846	UCS Settings	Provides items for Delivery Server setting address book settings and LDAP settings
SP 5-848	Web Service (Access Control)	Used for access and deliveries from Scan Router
SP 5 849	Installation Date	Displays or prints the installation date of the machine
SP 5 851	Bluetooth Mode	Sets the operation for the Bluetooth Unit (Public / Private)
SP 5-857	Debug Log	Stores information to troubleshoot unit
SP 5-859	Debug Save Key	Determines what information is stored to troubleshoot
SP 5-860	SMTP/POP3/IMAP4	Changes settings for the STMP/POP3/IMAP4 server information
SP 5-873	SD Card Appli Move	Copies the application programs from the original SD Card to the Printer/Scanner SD Card
SP 5-907	Plug and Play	Savin/Gestetner/Lanier Branding requires selection at install
SP 5-974	Cherry Server (SR V2)	Selects which version of Scan Router application program is installed.
SP 5 985	Device Settings	The NIB and USB support features are built into the controller. Use this SP to enable and disable these features.
SP 7-804	PM Counter Reset	Clears PM counters

Non Recommended Paper:

- Thermal fax paper
- Art paper
- Aluminum foil
- Carbon paper
- Conductive paper
- Paper with perforated lines
- Hemmed-edge paper
- Tab Stock
- Bent, folded or creased paper
- Torn paper
- Slippery paper
- Perforated paper
- Rough paper
- Thin paper with little stiffness
- Paper with a dusty surface

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Recommended Paper:

Brand	Brand Name	Weight	Size	Recommendation of Paper Type	
Hammermill	CopyPlus	20lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper
Kodak	BrightWhite blancbrillant	24lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper
Xerox	Premium MultiPurpose	20lb	LT	Not recommended	Quality mode, in driver Plain paper
HP	ColorInkjet	24lb	LT	Not recommended	Quality mode, in driver Plain paper
HP	BrightWhiteInkjet	24lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper
Hammermill	TidalMP	20lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper
IBM	Ultimate InkjetPaper	24lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper
Hammermill	PremiumLaser	24lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper
HP	Multipurpose	20lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper
Xerox	PremiumInkjet	24lb	LT	Normal mode, Plain Paper	Quality mode, in driver Plain paper

Branding:

Branding is required as the machines are shipped as a generic version.

Ricoh version machines: You must attach the model label (provided) to the front cover.

Savin/Gestetner/Lanier: You must attach the model label (provided) to the front cover and set the Plug and Play name with SP 5-907.



Revisions:

1.0 Original